

What is claimed is:

1. A plurality of overlapping snack pieces comprising:
 - a. a non-planar snack piece having a surface including random surface features extending from said surface;
 - b. wherein said plurality of overlapping snack pieces have a volumetric bulk density of greater than about $8.0 \times 10^{-5} \text{ g/mm}^3$.
2. A plurality of overlapping snack pieces according to claim 1, wherein said plurality of overlapping snack pieces are in a nested arrangement.
3. A plurality of overlapping snack pieces according to claim 1, wherein said volumetric bulk density is from about $8.0 \times 10^{-5} \text{ g/mm}^3$ to about $80 \times 10^{-5} \text{ g/mm}^3$.
4. A plurality of overlapping snack pieces according to claim 1, wherein said snack piece has a concave curvature.
5. A plurality of overlapping snack pieces according to claim 4, wherein said snack piece has a bowl-shaped curvature.
6. A plurality of overlapping snack pieces according to claim 1, wherein said body a segment of a sphere cap.
7. A plurality of overlapping snack pieces according to claim 5, wherein said snack piece has a radius of curvature from about 5 mm to about 500 mm.
8. A plurality of overlapping snack pieces according to claim 1, wherein said snack piece has a modulus of elasticity from about 0.1 g/mm^2 to about 6.0 g/mm^2 .
9. A plurality of overlapping snack pieces according to claim 2, wherein said snack piece having a maximum thickness from about 2.5 mm to about 5.5 mm.
10. A plurality of overlapping snack pieces according to claim 1, wherein said snack piece contains a lipid content from about 18% to about 40%.
11. A plurality of overlapping snack pieces according to claim 1, wherein said snack piece has a density from about $1.0 \times 10^{-4} \text{ g/mm}^3$ to about $17 \times 10^{-4} \text{ g/mm}^3$.
12. A plurality of overlapping snack pieces according to claim 1, wherein each of said snack pieces in said plurality of overlapping snack pieces are consistent in size and shape.
13. A plurality of overlapping snack pieces according to claim 1, wherein said snack piece is contained in a package.

9.10 14. A plurality of overlapping snack pieces according to claim 14, wherein said plurality of overlapping snack pieces is placed in a package, said package having a packed bulk density from about $10 \times 10^{-5} \text{ g/mm}^3$ to about $35 \times 10^{-5} \text{ g/mm}^3$.

15. A plurality of overlapping snack pieces comprising:

- a. a non-planar snack piece has a concave curvature;
- b. wherein said plurality of overlapping snack pieces have a volumetric bulk density of greater than about $8.0 \times 10^{-5} \text{ g/mm}^3$.

9.11 16. A plurality of overlapping snack pieces according to claim 16, wherein said snack piece has a bowl-shaped curvature.

17. A plurality of overlapping snack pieces according to claim 16, wherein said snack piece is a segment from a sphere cap.

18. A plurality of overlapping snack pieces according to claim 16, wherein said volumetric bulk density is from about $8.0 \times 10^{-5} \text{ g/mm}^3$ to about $80 \times 10^{-5} \text{ g/mm}^3$.

19. A plurality of overlapping snack pieces according to claim 16, wherein said snack piece having a lipid content from about 18% to about 40%.

20. A plurality of overlapping snack pieces according to claim 16, wherein said plurality of overlapping snack pieces is placed in a package, said package having a packed bulk density from about $10 \times 10^{-5} \text{ g/mm}^3$ to about $35 \times 10^{-5} \text{ g/mm}^3$.

21. A plurality of overlapping snack pieces comprising:

- a. a non-planar snack piece having a maximum thickness greater than about 2.5 mm;
- b. wherein said plurality of overlapping snack pieces have a volumetric bulk density of greater than about $8.0 \times 10^{-5} \text{ g/mm}^3$.

9.12 22. A plurality of overlapping snack pieces according to claim 22, wherein said snack piece having a lipid content from about 18% to about 40%.

23. A plurality of overlapping snack pieces comprising:

- a. a non-planar snack piece having a concave curvature;
- b. wherein said plurality of overlapping snack pieces is placed in a package, said package having a packed volumetric bulk density greater than about $10 \times 10^{-5} \text{ g/mm}^3$ to about $35 \times 10^{-5} \text{ g/mm}^3$.

24. A plurality of overlapping snack pieces comprising:

- a. a non-planar snack piece having a surface including random surface features extending from said surface;
- b. wherein said plurality of overlapping snack pieces have a linear bulk density of greater than about 0.4 g/mm^3 .
25. A plurality of overlapping snack pieces according to claim 25, wherein said snack piece has a concave curvature.
26. A plurality of overlapping snack pieces according to claim 26, wherein said snack piece has a bowl-shaped curvature.
27. A plurality of overlapping snack pieces according to claim 27, wherein said body a segment of a sphere cap.
28. A plurality of overlapping snack pieces comprising:
- a. a snack piece having a lipid content of less than about 23% by weight of the snack piece;
- b. wherein said plurality of overlapping snack pieces have a volumetric bulk density from about $8.0 \times 10^{-5} \text{ g/mm}^3$ to about $80 \times 10^{-5} \text{ g/mm}^3$.
29. A plurality of overlapping snack pieces according to claim 29, wherein said plurality of overlapping snack pieces is placed in a package, said package having a packed volumetric bulk density from about $10 \times 10^{-5} \text{ g/mm}^3$ to about $35 \times 10^{-5} \text{ g/mm}^3$.
30. A method for making a high bulk density plurality of overlapping thick snack pieces, said method comprising the steps of:
- a. controlling the radius of curvature of the chip by placing a dough piece of said snack piece adjacent to predetermined curved restraining device having a radius of curvature from 5 mm to about 500 mm;
- b. cooking said dough piece while said dough piece is restrained by said curved restraining device until said dough piece transforms into said final snack piece having a surface wherein random surface features extend from said surface; and
- c. placing said snack piece adjacent to other of said snack pieces to form said plurality of overlapping snack pieces, wherein said plurality of overlapping snack pieces having a volumetric bulk density greater than $8.0 \times 10^{-5} \text{ g/mm}^3$.